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DATE MAILED: 03/26/2003

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/994,990	11/09/2001	Christopher D. Immer	KSC-12139-1	9113
75	590 03/26/2003			
Randall M. Heald Patent Counsel National Aeronautics and Space Administration			EXAMINER	
			FERGUSON, MARISSA L	
Mail Code: CC-A/John F. Kennedy Space Center Kennedy Space Center, FL 32899		ART UNIT	PAPER NUMBER	
remined) Spare			2854	

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(a)				
,			Applicant(s)				
	Office Action Summary	09/994,990	IMMER ET AL.				
	omec Action Gummary	Examiner	Art Unit				
	The MAILING DATE of this communication and	Marissa L Ferguson	2855				
Period f	• •		·				
THE - Exte afte - If th - If NO - Faild - Any	HORTENED STATUTORY PERIOD FOR REPLY MAILING DATE OF THIS COMMUNICATION. ensions of time may be available under the provisions of 37 CFR 1.13 r SIX (6) MONTHS from the mailing date of this communication. e period for reply specified above is less than thirty (30) days, a reply o period for reply is specified above, the maximum statutory period wure to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing led patent term adjustment. See 37 CFR 1.704(b).	16(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) day: ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
1)⊠	Responsive to communication(s) filed on 17 D	Pecember 2002 .					
2a) <u></u> □	This action is FINAL . 2b)⊠ Thi	s action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims							
	Claim(s) <u>1-27</u> is/are pending in the application.						
,_	4a) Of the above claim(s) is/are withdrawn from consideration.						
5)□	5) Claim(s) is/are allowed.						
	6)⊠ Claim(s) <u>1-1319</u> is/are rejected.						
_	7)⊠ Claim(s) <u>14,15 and 20</u> is/are objected to.						
8)	Claim(s) are subject to restriction and/or ion Papers	election requirement.					
	The specification is objected to by the Examiner						
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.							
If approved, corrected drawings are required in reply to this Office action.							
12) The oath or declaration is objected to by the Examiner.							
Priority (under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a) All b) Some * c) None of:							
	1. Certified copies of the priority documents have been received.						
	2. Certified copies of the priority documents have been received in Application No						
 Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 							
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).							
	The translation of the foreign language prov Acknowledgment is made of a claim for domestic						
Attachmen			and the terms of t				
2) 🔲 Notic	ce of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informal P	(PTO-413) Paper No(s) satent Application (PTO-152)				

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Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knecht et al. (US Patent 4,578,735).

Regarding claim 1, Knecht et al. teaches a single support substrate (see elements 11 and 110), two capacitive absolute pressure measuring devices (see elements 24,108,122 and Column 9, Lines 37-41), and pressure connection parts (see elements 22,103,106,111, and 120) extending from two pressure measuring devices (See figure 6) extending from two separated spaces and coupling each of the spaces and pressures to the capacitive measuring devices (See figure 6). Although, Knecht teaches two capacitive pressure measuring devices, he does not explicitly disclose that they are monolithically integrated on a single substrate. However, in figure 1 of embodiment one the capacitor plates 24 appear to be integrated on substrate 11.

Regarding figures 5 and 6, of a different embodiment, the capacitive devices (108,122) are integrated on sensor cells 100 and 115, which are electrically connected to substrate 110 (Column 9, Lines 37-41). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Knecht et al. to provide the necessary monolithically integrated connection for any desired

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intended use, because such modification is well within the level of an ordinary skilled artisan.

Regarding claim 4, Knecht et al. teaches mutually separated chambers that are filled with a fluid substance (Abstract)

Regarding claim 5, Knecht et al. teaches two capacitive measuring devices that outputs two signals (provided through leads 125 and 126) including an evaluation circuit configuration (38) integrated on a semiconductor chip (Column 5, Lines 51-54) and wherein the circuit configuration is coupled to the capacitive measuring devices and receives and processes output signals (Column 5, Lines 59-63, Column 9, Lines 51-54, and Column 10, Lines 6-8).

Regarding claims 7 and 8, Knecht et al. teaches hose shaped pressure connection parts and connectors (103 and 120) that project above (depending on the axis) the pressure measuring devices.

Regarding claim 9, Knecht et al. teaches two vacuumed chambers (100 and 115 appear to be vacuumed).

Allowable Subject Matter

2. Claims 2,3 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Response to Arguments

3. Applicant's arguments with respect to claims 1-9 have been considered but are

moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Marissa L Ferguson whose telephone number is (703)

305-3194. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every

other (F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone

numbers for the organization where this application or proceeding is assigned are (703)

308-7722 for regular communications and (703) 308-7722 for After Final

communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 308-

1782.

Marissa L Ferguson

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Examiner

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March 22, 2003

HEZRAN WILLIAMS

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2800